

**METHOD AND APPARATUS FOR CODE ASSIGNMENT  
IN A SPREAD SPECTRUM WIRELESS  
COMMUNICATION SYSTEM**

**ABSTRACT**

Method and apparatus for code assignments in a spread-spectrum wireless communication system incorporating a Large Area Synchronized-Code Division Multiple Access (LAS-CDMA) protocol. The method determines a set of LS codes based on an interference free window size. An arborescence structure provides the correspondence between the interference free window size and the set of LS codes. Subsets of the LS codes are formed having null cross-correlation within the interference free window. The subsets are assigned to neighboring cells in the system to reduce interference between neighbors. In one embodiment, a controller determines the subsets and makes the assignments to cells within the system.